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Dipole clusters with nontrivial scale-invariant properties

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Abstract

In this paper the scale-invariant properties of the plane (2D) with the growth centre located on the charged particle have been considered. The dependence "number of particles with respect to radius of cluster" is presented by two power-law exponents that differs them from one power-law dependence characterizing the DLA (diffusion limited aggregation) clusters. In our case the interpretation the power-law exponents found in terms of the fractal dimension becomes unacceptable. The model considered it is supposed to be applied for consideration of similar clusters in polar liquids. © 2009 Pleiades Publishing, Ltd.

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